

Chapter 7

Creating Watershed Configurations

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Chapter 7

Creating Watershed Configurations


Once you have added all of the Projects and Computation Points needed for the watershed, you will need to create one or more Configurations. A Configuration is a specific physical arrangement of projects and computation points that will be modeled for the study of the watershed. **Watershed Configurations** are defined within the **Watershed Setup Module**.

ResSim provides enough flexibility to create Configurations for use in both real-time and planning contexts. ResSim creates a “superset” of all configurations (named **Study**) that contains all of the projects and computation points defined for the watershed. Additional Configurations you create reflect particular watershed conditions. For example, you might create Configurations for *Existing Condition* and *Future Condition – 2030*.

When you create additional Configurations, you can associate projects with specific Configurations, or add and remove them from the list of projects associated with a particular Configuration. You make Configuration associations with Alternatives, as described in Chapter 13.

7.1 Adding Watershed Configurations

Watershed Configurations are added and edited within the **Watershed Setup Module**. To add a Configuration:

1. Lock  the configuration.
2. From the **Watershed** menu, click **Configuration Editor**. The **Configuration Editor** (Figure 7.1) will open.

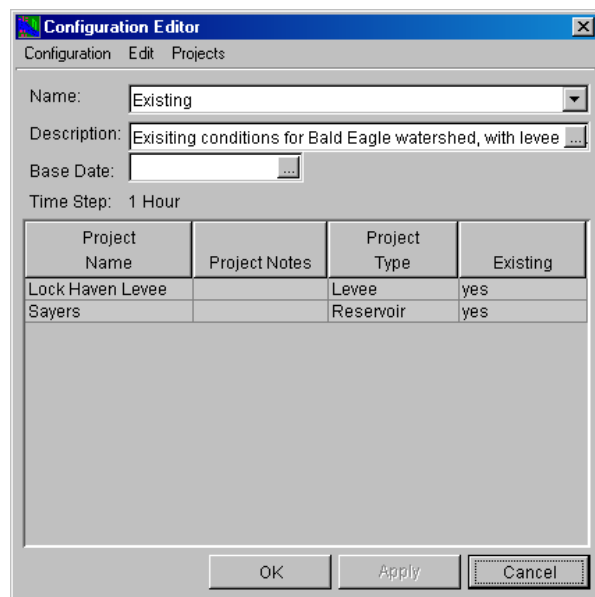


Figure 7.1 Configuration Editor

3. In the **Configuration** menu, click **New**. The **Create a New Configuration** dialog box (Figure 7.2) will open.

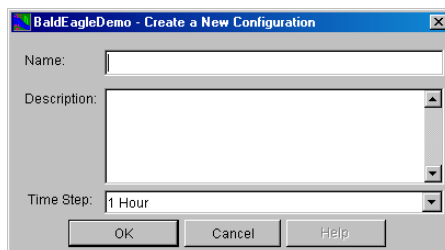



Figure 7.2 Create a New Configuration

4. Enter the **Name** (required) and **Description** (optional).
5. The Configuration **Time Step** is only used when ResSim is operated as part of the Corps Water Management System (CWMS) software package, but it is required even when using ResSim as standalone software. From the **Time Step** list, select a computation time step interval for the configuration.
6. Click **OK** to close the Create a New Configuration dialog box.
7. The name of the new configuration will appear in the **Name** list of the **Configuration Editor**, along with its defined **Time Step**.
8. Any project flagged as an Existing project (see Chapter 6, Section 6.1.1), before you defined the new Configuration, will automatically be included in the table. To add projects (that are not flagged as Existing) to the configuration refer to Sections 7.2 and 7.2.1.
9. Once you have created the new Configuration, you can also *optionally* associate a **Date** with the Configuration. The **Base Date** field is used by some HEC applications (e.g., HEC-FIA), particularly in a planning context. You can either directly type the date into the field in the appropriate format (e.g., 01Feb2002), or use the **Calendar Tool** (Figure 7.3).

To use the Calendar tool:

- In the **Configuration Editor**, click on the  button to the right of the **Base Date** field. The **Calendar Tool** will appear.
- Select the month and year by clicking the left and right arrow buttons to navigate backwards and forwards. Select the day by clicking on the appropriate day button.
- Click **OK** to close the Calendar tool.




**Figure 7.3
Calendar Tool**

10. When you are done creating the new Configuration, Click **OK** to close the Configuration Editor.

7.2 Adding and Removing Projects from Configurations

As you set up your watershed and manage it over time, you may need to add new Projects to, or remove Projects from, Configurations you have created. To do this:

1. Select the **Configuration** you want to edit from the **Configurations** list on the toolbar.
2. Lock  the configuration.
3. Open the **Configuration Editor** from the **Watershed** menu.
4. From the **Projects** menu, select **Edit Project List**, as shown in Figure 7.4.

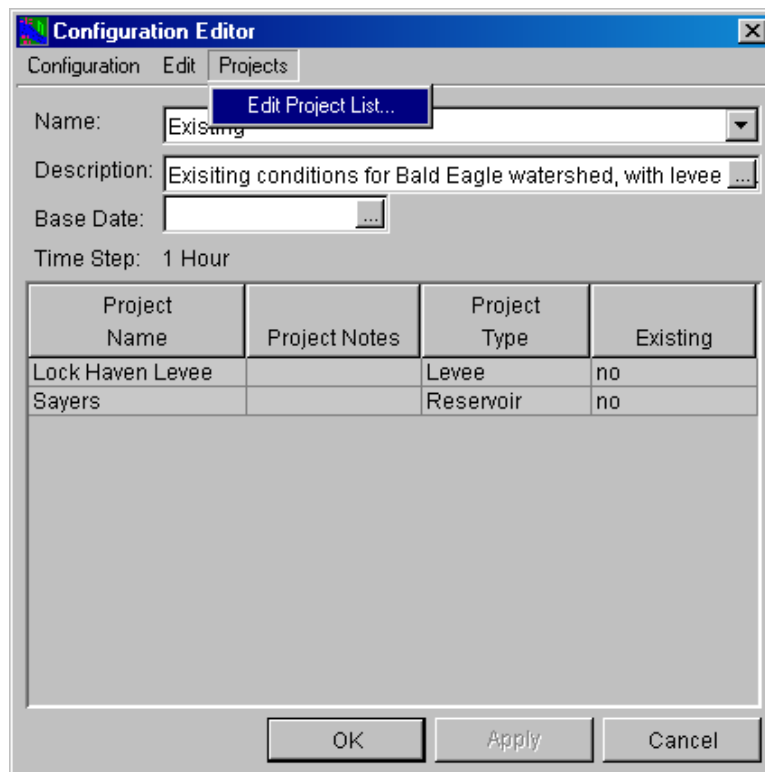


Figure 7.4 Configuration Editor – Edit Project List Option from Projects Menu

5. The **Project Selector** dialog box (Figure 7.5) will open. The Project Selector displays the Configuration name and description for reference. The left pane contains all **Available Projects** not already associated with the Configuration (in this example, two projects, Channel and ChannelMod). The **Projects in Configuration** pane on the right lists all Projects currently

associated with the Configuration. Between the two panes are four buttons that enable you to add and remove projects of the Configuration by moving Projects from one pane to the other.

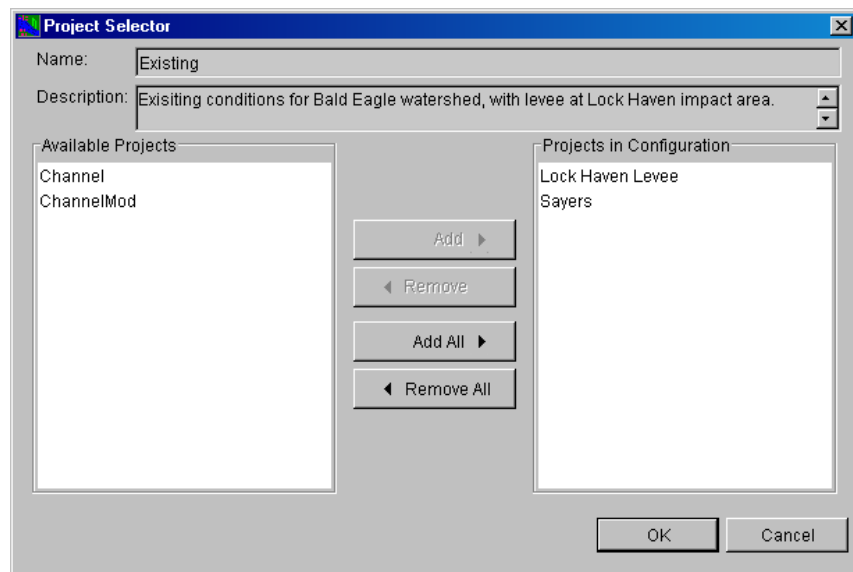


Figure 7.5 Project Selector Dialog Box

7.2.1 Adding Projects to a Configuration

To add Projects to an existing Configuration:

1. To add *individual* Projects, click on the Project's name in the **Available Projects** list (Figure 7.5) to select it, and then click the **Add** button to move it to the **Projects in Configuration** list.
2. To add *all* of the **Available Projects** to a Configuration, click the **Add All** button.
3. Click **OK** to save your changes and close the Project Selector dialog box.

7.2.2 Removing Projects from a Configuration

To remove Projects from an existing Configuration:

1. To remove *individual* Projects, click on the Project's name in the **Projects in Configuration** list (Figure 7.5) to select it, and then click the **Remove** button to move it to the **Available Projects** list.
2. To remove *all* of the **Projects in Configuration** from a Configuration, click the **Remove All** button.
3. Click **OK** to save your changes and close the Project Selector dialog box.

7.3 Adding Configuration Notes

Project notes within a Configuration are any comments that pertain specifically to a project in a particular Configuration. To **Add** or **Edit** project notes within a Configuration:

1. Select a project row in the **Configuration Editor**. If you do not select a project in the Configuration Editor before selecting the Project Notes menu item, you are alerted to select a project from the list.
2. Choose **Project Notes** from the **Edit** menu. The **Configuration Notes** dialog opens (Figure 7.6).

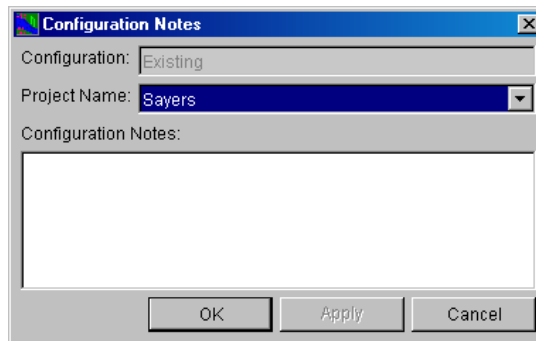


Figure 7.6 Configuration Notes Dialog Box

3. When the **Configuration Notes** dialog opens, enter any Configuration-specific notes as needed.
4. Click **OK** to close the Configuration Notes dialog box.

7.4 Making a Copy of a Configuration

Sometimes you might want to make an exact copy of an existing configuration and then make some changes to it so you have a different configuration. To make a copy of a configuration:

1. On the **Configuration Editor** (see Figure 7.1), from the **Name** list, select a configuration that you wish to copy.
2. From the **Configuration** menu, click **Save As...**, and the **Save As** dialog box (Figure 7.7) opens.

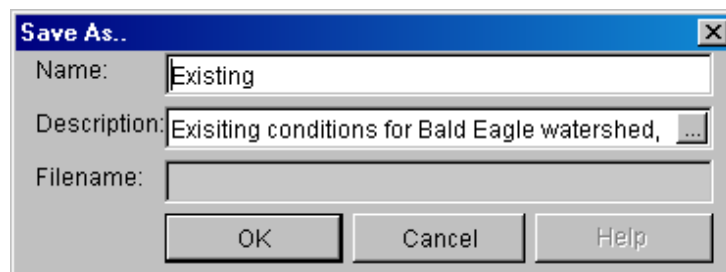


Figure 7.7 Configuration Save As... Dialog Box

3. The **Name** box contains the name of the selected configuration. Enter a new name in the **Name** box, and replace the description in the **Description** box.
4. Click **OK** to close the **Save As** dialog box. In the **Name** list on the **Configuration Editor** the new configuration is included.

7.5 Deleting a Configuration

To delete a configuration:

1. On the **Configuration Editor** (see Figure 7.1), from the **Name** list, select the Configuration that you want to delete.
2. From the **Configuration** menu, select **Delete**.
3. A warning message (Figure 7.8) will open asking you whether you really want to delete the selected configuration. Click **Yes**, the warning message will close and the configuration name will no longer appear in the **Name** list on the **Configuration Editor**.

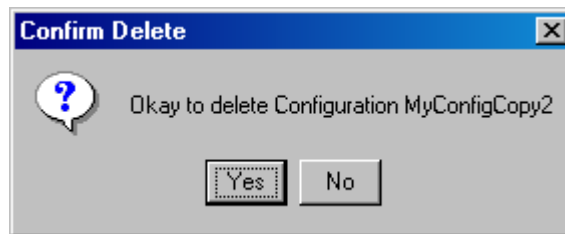


Figure 7.8 Confirm Delete of a Configuration

7.6 Saving Configuration Data

To save the data you have entered for a Configuration, from the **Watershed** menu, click **Save Configuration**. This command will cause the program to save all configuration specific data.

7.7 Listing Configurations

Once you have all of your configurations entered, you might like to review the configurations in your watershed. From the **Watershed Setup Module** there is a report that contains this information.

To view the List of All Configurations:

1. You must be in the **Watershed Setup Module**. On the **Module** list, click **Watershed Setup**.
2. From the **Reports** menu, choose **List of All Configurations**, and the **List of Configurations** dialog box (Figure 7.9) will open.

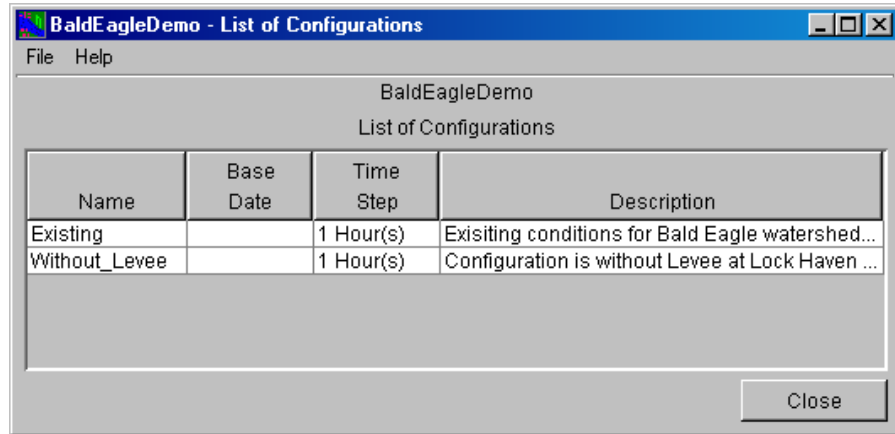


Figure 7.9 List of Configurations Report

3. This report provides a list of configurations that have been input for the watershed. The list includes the **Name** and **Description**, along with the **Time Step** and **Base Date** (if entered) for each Configuration.
4. From the **File** menu, you can send the report to a printer, or you can export the report to an ASCII file. See Appendix F, Section F.4 for more details about printing and exporting tabulated data.
5. Click **Close** to close the **List of Configurations** report.

